AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended): A method of obtaining a matrix value for sequence determination of an actual ~~nucleic acid~~ sample of nucleic acid performing matrix transformation from detected signal waveform to emitted signal waveform on a waveform signal obtained from a detection part for each fluorochrome by fluorochrome terminator labeling employing a plurality of fluorochromes having different fluorescent waveforms for obtaining an emitted signal waveform for every base, and determining a base sequence of the nucleic acid on the basis thereof, wherein the method obtains the matrix value for performing the matrix transformation from migration of the actual sample ~~migration~~ through steps of:

(1) extracting peaks from a proper range of the waveform signal obtained from ~~each~~ the detection part for each fluorochrome ~~during migration of the labeled nucleic acid~~ from migration of the actual sample;

(2) eliminating peaks having irregular peak intervals;

(3) classifying the peaks into four groups corresponding to the types of bases ~~based on~~ in response to the signal strengths for each of the remaining peaks ~~according to predetermined group membership criteria~~;

(4) calculating signal strength ratios ~~of~~ for each of the classified ~~the~~ four groups ~~according to a predetermined calculation method~~;

(5) allocating the corresponding bases to the classified four groups based on the signal

strength ratios for each of the four groups ~~according to predetermined base allocation criteria~~; and

(6) obtaining the matrix value by signal strength ratios of the respective base groups.

2. (Previously presented): The method according to claim 1, wherein

the proper range in the step (1) is a certain range of starting points of signals.

3. (Previously presented): The method according to claim 1, wherein

the peaks extracted in the step (1) are such peaks that the strength of the maximum fluorochrome signal is larger than the minimum standard for peak detection in a used sequence determination program.

4. (Previously presented): The method according to claim 1, wherein

peaks having signal strengths of fluorochromes of separate waveforms ~~are~~ larger than signal strengths of fluorochromes of adjacent waveforms are eliminated in the step (1).

5. (Previously presented): The method according to claim 1, wherein

the four groups classified in the step (3) are the four groups having the largest peak numbers.

6. (Currently amended): The method according to claim 1, wherein

the signal strength ratios in the step (4) are either mean values or ~~median~~ central values.

7. (Currently amended): The method according to claim 6, wherein

the signal strength ratios are ~~median~~ central values.

8. (Previously presented): The method according to claim 1, wherein,

in the step (5), when the types of maximum detection signals of four groups are different from each other, the bases are allocated by allocating the types of these maximum detection signals as the base species of respective the groups.

9. (Previously presented): The method according to claim 1, wherein,

in the step (5), when the types of maximum detection signals of two groups are identical to each other, the bases are allocated on the basis of the types of the third largest detection signals of the groups.

10. (Previously presented): The method according to claim 1, wherein

the base sequence of the nucleic acid sequence is determined with the obtained ~~the~~ matrix value for thereafter obtaining ~~a~~ an optimized matrix value based on peak signals of the determined base sequence.

11. (Currently amended): The method according to claim 1, wherein

a set of conditions are ~~predetermined~~ limited thereby simplifying treatment in at least one of the steps (1) to (6).

12. (Currently amended): The method according to claim 11, wherein

the set of ~~predetermined~~ limited conditions include the sensitivities of the detection parts as to bases A, T, G, and C.

13. (Currently amended): The method of sequence determination according to claim 11, wherein

the set of ~~predetermined~~ limited conditions include the difference in mobility or strength between fluorochromes.

14. (Currently amended): The method according to claim 1, wherein the waveform signal is obtained from four types of detection parts ~~with one detection part for each fluorochrome~~ detecting four types of wavelengths of four types of fluorochromes, respectively.

15. (Canceled)

16. (Previously presented): The method according to claim 1, wherein, in step (3), peaks having abnormal signal strengths are eliminated.